DOCUMENT RESUME

ED 396 906 SE 055 958

TITLE	Ohio SchoolNet. Schools on the Move.
INSTITUTION	Ohio State Dept. of Education, Columbus.
PUB DATE	Feb 95
NOTE	45p.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Computer Assisted Instruction; Computer Mediated Communication; *Computer Networks; Demonstration Programs; *Educational Technology; Elementary Secondary Education; Public Education; Science Education; *State Government; State Programs
IDENTIFIERS	*Ohio; *SchoolNet

ABSTRACT

SchoolNet is a state-funded partnership that will facilitate the installation of computer and communications networking technology in public schools and classrooms across Ohio and coordinate its use. SchoolNet seeks to provide Ohio students with expanded course offerings; more individualized educational opportunities; interactive learning opportunities; linkages with libraries, universities, and other classrooms across the state and nation; access to world-wide databases and information resources; and information exchanges among teachers and students down the hall and around the world. This booklet describes 14 prototype projects in one or more Ohio schools within a single district, several school districts, or selected schools within several districts. Each description provides an explanation of the major components of the program. Prototype schools receive wiring, professional development for educators, and charter membership in the SchoolNet state newtork. (LZ)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 396 906

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

T. SANDERS

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

OHIO
SchoolNet
Schools on the move

• Jefferson • Kalida • Knox • Leipsic • Louisville • Loveland • Martington • Miller City • Minerva • Northwest • Onaburg • Ottawa-Glandorf • Ottoville • Pandora-Gilboa • Perry • Plain • Putnam • Pymatuning Valley • Ripley-Union-Lewis-Huntington • Stark • Talawanda • Toledo • Tri-Village • Ashtabula • Athens • Buckeye • Canton • Centerburg • Columbus • Columbus Grove • Conneaut • Continental • Danville • Dawson-Bryant • East Cleveland • East Knox • Fairless • Fort Jennings • Frazeysburg • Fredericktown • Gahanna-Jefferson • Geneva • Grand Valley • Ironton •

BEST COPY AVAILABLE

CE055958

Even if you're
on the right track,
you're going to get run over
if you just sit there.

Will Rogers

Schools on the move

Preparing Ohio students for their future . . .

SchoolNet is a state-funded partnership established by Governor Voinovich and backed by the Ohio legislature that will encourage and support local school improvement efforts. Over the next five years, it will facilitate the installation of networking technology in schools and classrooms across Ohio and coordinate its use. SchoolNet seeks to stimulate thinking, learning, and doing—using technology to expand the traditional classroom experience for our children and help them acquire skills that will be critical to the education and job markets of the future.

We call SchoolNet a partnership because it requires the motivation, cooperation, and effort of many people to ensure its success—communities, state agencies, school districts, schools, teachers, students, parents, and business and technology leaders. All SchoolNet partners will contribute their time, attention, and individual expertise. They will help to guide the way technology is installed and used in their communities, in their classrooms, and with their children—they will help to make it all happen.

Transforming learning with technology . . .

The primary goal of SchoolNet is to wire every classroom in every public school in the state. Wiring will support voice, video, and data transmission. Additional infrastructure can provide linkages outside the classroom walls, empowering students and teachers to be a part of the changing world. In the future Ohio students will find expanded course offerings; more individualized educational opportunities; interactive learning opportunities; linkages with libraries, universities, and other classrooms across the state and nation; access to world-wide databases and information resources; and information exchanges among teachers and students down the hall and around the world.

Learning by doing . . .

SchoolNet prototypes have been established to implement various configurations of hardware and software. Their implementation will be studied to develop an understanding of the professional development, different resources, and types of policies that will be needed to support these collaborative learning environments.

Projects involve one or more schools within a single district; several school districts; or selected schools within several districts. Every effort has been made to select prototypes that represent different arrangements of schools in urban, suburban and rural settings to mirror the range and diversity of Ohio schools. Using the application process as an indicator, they demonstrate capacity for potential success.

Prototype schools receive wiring, professional development for educators, and charter membership in the SchoolNet state network. In addition, low wealth schools in prototypes qualify for classroom workstations. The commitment from participating schools includes time—time for professional development, prototype development and work sharing—and support for the technological and educational changes that prototypes will cause. Prototype schools will provide information to the SchoolNet interagency committee. While it is anticipated that SchoolNet will have an immediate impact, prototype projects may be sustained for several years to demonstrate the deeper changes that occur more slowly.

Prototype schools have agreed to work collaboratively and to host visitors from other Ohio schools. They have also identified and committed resources to SchoolNet activities. Flexibility during the developmental phase, integration of technology into the curriculum and a desire to improve the performance of learners are important attributes of successful prototype sites.

pro•to•type (prō′ tə tīp′) n. 1. an original type, form, or instance that serves as a model on which later stages are based or judged. 2. An early, typical example. [French, from Greek *prōtotupon*, from neuter of *prōtotupos*, original: proto-, proto- + tupos, model]

Ashtabula County Consortium
Ashtabula Area City Schools, Buckeye Local, Conneaut Area City Schools, Geneva Area City Schools, Grand Valley Local, Jefferson Area Local, Pymatuning Valley Local School District

Site liaison:
Richard Crepage
216.576.9023

Focusing on sciencelinteractive distance learning

The project will enhance Ashtabula's existing interactive television network, which serves as a vehicle for interaction and instruction for students in grades four through twelve at eight county high schools and the Ashtabula Campus of Kent State University.

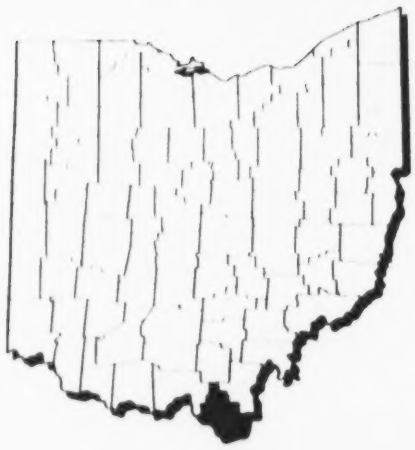
Four major components will utilize technology.

1. The Ashtabula County Interactive Television Network will demonstrate the use of distance learning for expanded course offerings for students, staff development for staff, and educational opportunities for adult education. The interactive television network connects every public high school in Ashtabula County as well as the Ashtabula Campus of Kent State University.

2. The Science and Technology component will involve the establishment of a wide area network connecting a science lab in each of the nine public high schools of Ashtabula County. Six workstations equipped with probes will be used to conduct experiments and to provide opportunities for interactive learning between students and staff in classrooms, schools, and industry. In addition, the high school libraries will be part of this network, providing students and staff with the opportunity to increase their access to additional knowledge sources.

3. Every elementary classroom in the Buckeye Local School District is equipped with a computer with an internal CD-ROM. Students and staff will utilize technology to provide opportunities for students and staff to "connect" within the building, among the four elementary, junior high, and senior high buildings within the district, and with outside resources.

4. The Geneva Area City School District will develop their District Technology Plan that will result in classrooms in all buildings being equipped with at least one computer. Students and staff will utilize technology to provide opportunities for students and staff to "connect" within the building, among the five elementary, junior high, and senior high buildings within the district, and with outside resources.



C.A.R.E.
Dawson-Bryant Local Schools,
Ironton City Schools

Site liaison:
Donald Washburn
614.532.6451

Providing electronic tools for communication and collaboration

- Talented and gifted and developmentally-handicapped students collaborating using e-mail and interactive video to develop employability skills
- Middle and high school students using electronic tools to do research and produce documentary videos and publications about Appalachian culture.
- Staff development

The project involves students attending two districts using telecommunications to learn computer skills. Students will range from developmentally handicapped to talented and gifted. Technology will be integrated into the curriculum and will be used for homework, extra credit projects and cooperative learning projects. Use will include electronic mail, bulletin board and Internet resources, full interactive communication, and teacher planning and evaluating. In addition to school resources provided through Technology Equity and Venture Capital grants, companies such as Cabletron and Ameritech have agreed to provide assistance. Other assistance will be provided by the Pilasco-Ross Special Educational Regional Resources Center, the South Central Ohio Computer Association, the Briggs Lawrence County Public Library, Ohio University, and the Jesse Stuart Foundation sponsored by Ashland Oil.

East Cleveland City Schools
Caledonia Elementary School

Site liaison:
Stella Loeb–Munson
216.268.6690

Interactive learning environments in the day-to-day curriculum

Caledonia Elementary School will use the SchoolNet wiring and the computer workstations to connect students and teachers throughout the school. The project will include community outreach elements involving the public library, the business community, and parents. Specifically, the project will focus on the science curriculum at all grade levels and will connect Caledonia with the Math/Science Enrichment Center. The school will also be connected to Cleveland FreeNET/Internet and will establish a homework hotline. With the help of a Venture Capital Grant received earlier, the school will be able to provide the teacher inservice training necessary to help teachers make effective instructional use of this valuable resource. Some of the community resource partners in this project include: Xerox Corp. (assistance with local area networking), Ameritech (guidance and support); and General Electric (community resources from its Nela Park complex).

Project goals include:

1. Create an interactive learning environment in the day-to-day science curriculum
2. Expand communications links so students can work with students in other elementary schools
3. Provide for more "hands-on" classroom experiences
4. Raise the expectations for student performance
5. Raise student performance in the sciences
6. Positively impact student performance on the fourth grade proficiency test
7. Integrate the science curriculum with the Math/Science Enrichment Center
8. Foster parental involvement using communications tools to link parents with teachers

Gahanna-Jefferson Public Schools
Gahanna Lincoln High School

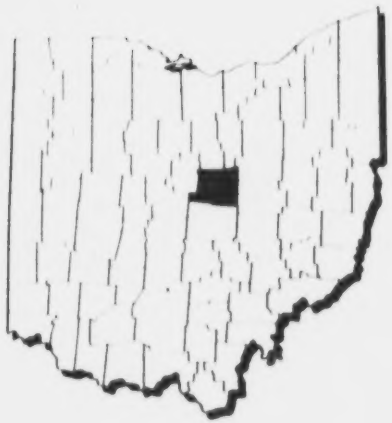
Site liaison:
Randy Allen
614.487.5541

Creating an infrastructure for seamless communication

Gahanna-Jefferson's SchoolNet project calls for providing a communications infrastructure throughout the school district. The infrastructure is to include video, voice, and data distribution to and from every classroom. In the initial phase, the project centers around the use of the Internet. Gahanna Lincoln High School will become a direct node on the "net." This will mean that students and teachers will have rapid access to information world-wide. It also means that Gahanna Lincoln will become an exchange site for information that can be used by students and educators throughout Ohio and the world. By exchanging, sharing, and doing cooperative work with others, student learning and staff development will be enhanced.

One example scheduled activity is an on-line course in Aeronautics and Space Simulations. Via the Internet connection, this course will be made available not only to students of Gahanna, but also to students world-wide. The course can be interdisciplinary in nature and will have learning components for grades K—14. It will be cooperatively taught via the Internet by Gahanna-Jefferson staff and staff from other interested Ohio Schools. This non-traditional distance learning concept will provide real-time simulations and projects teaming.

By providing a district-wide communications infrastructure that includes an Internet connection and dial-up access to existing computer networks, students, staff and community members will have 24 hour access to information, making the entire Gahanna community a learning community. This project establishes linkages with a number of private businesses: IBM has donated training, technical support, and software; the Ohio SuperComputer Center at OSU has offered opportunities for involvement in the summer SuperComputer Institute; and NASA Lewis Research Center has provided resources and guidance regarding real-time space simulations.



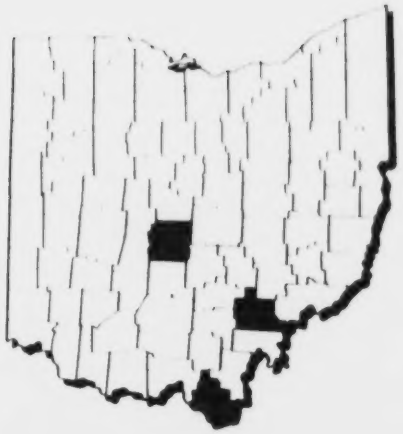
KnoxNet
Centerburg High School, Danville High School, East Knox High School, Fredericktown High School

Site liaison:
Don Moore
614.393.6767

KnoxNet: Collaboration and resource sharing

Through KnoxNet, a working prototype for SchoolNet, students will learn to locate and use information sources to develop skills and knowledge and to collaborate with others. Learners will use networked programs and classroom specific resources as well as general information from networked CD-ROMS available to all workstations in each district's local area network. Learners will have access to regional, national and global information resources through the frame-relay telephone technology used in a county-wide network that establishes a connection to the Internet through a partnership of Kenyon College and Knox County Schools. This wide area network will accommodate additional entities such as the Mount Vernon City Schools, Knox County Career Center, the Public Library of Knox County, businesses and private community members, enabling them to share the KnoxNet resources.

Because of the strong commitment of the Centerburg, Danville, East Knox, and Fredericktown faculties, and the established collaboration among schools, community, service providers and businesses, continuation and expansion of the KnoxNet/SchoolNet project is assured.



Learning Community Link
Columbus Public Schools, Athens City Schools, Dawson-Bryant Local Schools, Ironton City Schools

Site liaison:
Mike Burke
614.365.5276

Linking two established fiber optic networks

The Learning Community Link project is designed to meet Goals 2000 EducateAmerica and the Ohio SchoolNet project by linking two established fiber optic networks. The Columbus Educational Satellite Network (CESN) located in an urban setting will be linked to the Appalachian Distance Learning Project (ADLP) located in rural southeast Ohio. Merging these two networks brings together four school districts, a metropolitan library system, a community college and urban university in Columbus, and one major research and teaching university in Athens. Six schools in Columbus and twelve schools in ADLP, Athens City School District, Dawson-Bryant Local and Ironton City School District, will be connected for interactivity.

On-going communication between the participating schools will assist in designing and sustaining model mathematics and science lessons to meet the Ohio Model Programs. The collaboration will give teachers the opportunity to develop pedagogy that supports the individual learning styles of students from different socio-economic backgrounds. Teachers participating in the prototype will design real-world interdisciplinary and collaborative thematic projects which will utilize this fiber optic network to share data and research findings.

Linking elementary, middle and high school classrooms will also provide learners with access to culturally diverse student populations; increased opportunities to actively engage in hands-on mathematics and science curriculum with emphasizes critical thinking, problem solving and communications skills; and exposure to effective teachers who understand that technology is used as a means to acquire greater understanding of a concept and not as an end itself. Preservice teachers, teachers, and administrators within the four districts will collaborate on curriculum development and lesson planning through computer and interactive video links.

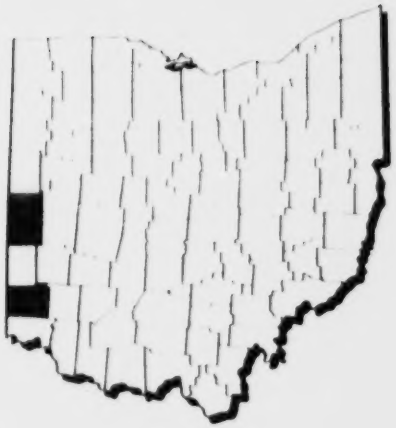
Loveland City Schools

Site liaison:
John Ames
513.683.5600

Building on a successful technology plan

Loveland City School District will be utilizing its current complement of 265 computers, 3 Novell networks and our association with SWOCA, SouthWest Ohio Computer Association, as a base with which to build our district network. We will have the capability to link our five classroom buildings to each other as well as linking them to an ever-increasing number of services being made available via the Internet. The district is being modeled around the hardware systems cabling topology found at Loveland High School. At that facility all classrooms are wired to a network with Ethernet connections, equipped with phones, and have video cabling with television.

Student utilization of computer software has far exceeded our greatest expectations. We implemented our technology plan two years ago. We are already presenting formalized instruction in the fourth grade with a keyboarding program. The results of our program are already visible in the middle school where sixth and seventh grade students who have previously participated in keyboarding are progressing into basic word processing and many other areas of study and research. Previously, this was not introduced until the freshman level. With the skills they have gained at such a young age, these students will have limitless possibilities available to them upon reaching the high school level. Education in the 1990's is a day-to-day, technologically changing environment for our students and faculty.



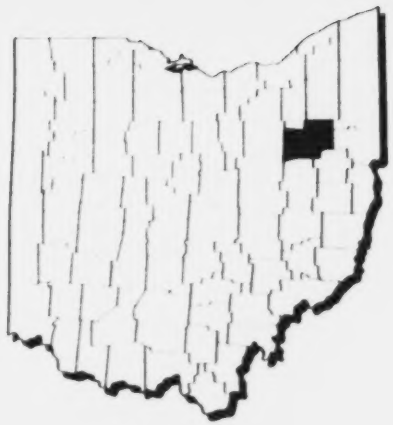
Partners in learning
Talawanda City Schools,
Tri-Village Local Schools

Site liaison:
Jerry Baker
513.996.6261

Forming alliances to create a community of learners

The Partners in Learning/SchoolNet Collaboration proposes to offer a powerful constellation of state-funded institutions and initiatives that are positioned to demonstrate the range and potential of the SchoolNet vision. The goal of the project is to demonstrate an integrated technologies prototype for systems-based reform supported by an embedded telecommunications infrastructure. Within the West and Southwest Professional Development Regions, partners now include Tri-Village Local Schools, Talawanda City Schools, Miami University, the Ohio Department of Education Venture Capital program funding, MDECA, SWOCA, SOITA, GTE North, GTE Edna, Warner Cable, Miami University, McCullough-Hyde Hospital, the City of Oxford, and the Oxford Chamber of Commerce.

This proposed SchoolNet prototype will proceed in five phases, consistent with the five critical areas of infrastructure development, participant access, instructional application, curriculum integration, and outcome dissemination. Activities and technologies within the project are organized within these five critical phases. Data collection will be guided by an evaluation matrix. Dissemination will utilize the SchoolNet infrastructure.



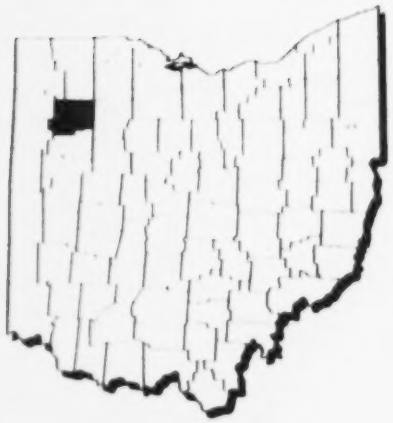
Plain Local Schools
GlenOak High School

Site Liaison:
Jackie DeGarmo-Riegner
216.492.7455

Communities of the Mind—
Extending the boundaries of learning in a high school redesign

GlenOak High School, a large two-campus comprehensive 9–12 program for the Plain Local Schools in northeastern Ohio, is in the midst of a restructuring effort. As an official Venture Schools engaged in the North Central Association Outcomes Accreditation process, the staff-developed plan to target five areas for school improvement with the reorganization of grade levels and a career oriented entry-year community structure enjoys wide support. The body of this two-phase redesign is the development of an interdisciplinary project-driven curriculum—the utilization of electronic interconnectivity will become its soul.

Phase I ('94–'95) will consist of on-line interdisciplinary pilot projects in three areas: Humanities, Engineering Tech Prep and Career Awareness. In Phase II ('95–'96) interdisciplinary teacher teams in Science, Social Studies, English, Career Guidance and Technology will structure project learning for a new culture of "communities of the mind" and all entry-year (ninth grade) students will be immersed into the practices of on-line connectivity. This project will include both campuses of GlenOak High School as well as schools, agencies, and businesses within our community and throughout the world.



Putnam County Consortium
Columbus Grove, Continental, Fort Jennings, Kalida, Leipsic, Miller City-New Cleveland, Ottawa-Glandorf, Ottoville, and Pandora-Gilboa Local School Districts.

Site liaison:
Scott Walthour
419.523.5951

Maximizing existing resources and creating new ones

The Putnam County Consortium will focus on:

1. Delivering professional development to all Putnam County educators so they can make true pedagogical use of the telecommunications capabilities available to them through the Northwest Ohio Area Computer Services Cooperative (Lima A-Site)
2. Establishing a Putnam County FreeNet and educating all interested learners about how to access and make use of it
3. Making preparations for the use of two-way audio/video distance learning among all participating districts

Ripley-Union-Lewis-Huntington School District

Site liaison:
Susan Owens
513.392.4396

Providing students with skills for their futures

The Ripley Union Lewis Huntington (RULH) School District prototype includes Ripley Elementary School and Ripley Union Lewis Huntington Jr./Sr. High School. The main focus is to provide our students with the opportunity and tools to acquire the skills necessary to function in the twenty-first century. The student goals for this proposal include: improve communication skills; expand mathematical skills and scientific applications; develop and utilize thinking skills and problem solving techniques; develop self-sufficiency to become lifelong, independent learners; instill group membership therefore developing interpersonal skills; and the inclusion of all special education students in all aspects of learning.

The proposal will be completed in three major phases: Phase 1 includes researching cabling design for voice, video, and data transmissions, securing cost estimates from vendors and installing cable at the elementary building. At the high school research and site visits to determine classroom hardware will be necessary. Phase 2 includes the installation of classroom hardware at the junior/senior high school as the elementary building continues to determine hardware and software needs. Phase 3 includes installation of a school-wide network and classroom hardware at the elementary building.

Educators will have classroom tools to challenge students via the incorporation and use of the "Information Superhighway" as well as other information resources. They will become adept at accessing the vast amount of informational sources available to them and present this information in a meaningful way. Students and teachers will become highly motivated as they experience the importance of multisensory learning. Traditional methods of teaching will change, and the focus will be on the learner. Teachers will become coaches or facilitators in the classroom. Students who do not perform well in traditional academic environments will have the opportunity to display their creativity. Multidisciplinary projects that involve two or more classes will promote cooperative learning. The new technologies will allow both teachers and students to be more creative and productive, and it will spark a new excitement about teaching and learning while encouraging students to be adaptable, lifelong learners in a constantly changing world.

StarkNet
Canton Local, Fairless Local, Minerva Local, Louisville City, Osnaburg Local, Marlington Local, NorthWest Local, Perry Local School Districts

Site liaison:
Kristine Wyler
216.492.8136

Increase student access to ideas, expertise, and resources

This collaborative's grades 6-12 student/teacher teams will increase the ability of all students to share ideas, expertise, and resources by linking together computer-based stations in the schools with colleges and universities, libraries, government agencies, businesses, medical centers, and homes throughout the county, the state, the nation, and the world.

The goals of the project are as follows:

1. Lifelong Learners—To empower all students to be lifelong learners in a restructured educational environment.

2. Enchancement Through Connectivity—To enhance student learning by connecting into community support systems, including intergovernmental, business and parent sectors, through the development of a technological infrastructure.

3. SchoolNet Prototype—To support student opportunities for learning both within the consortium and throughout the state through the development of connectivity, applications and programs, the combined effects of which will serve as a SchoolNet prototype.

In this vision, an observer visiting a school and learning community, would view students and teachers working—individually and in teams—to explore real-world problems and their potential solutions; producing products; making decisions; thinking creatively as they research; organizing, synthesizing, and processing ideas; and communicating and sharing ideas with other work groups both within and outside the school.

Toledo Public Schools
Elmhurst Elementary School

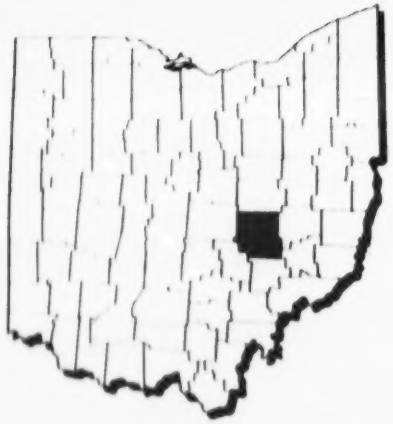
Site liaison:
Craig Cotner
419.729.8422

Breaking through the classroom wall

The Toledo Public Schools will use SchoolNet in one pilot elementary school for the purpose of breaking down the walls that inhibit the education process and assisting students to develop skills which productive citizens of the twenty-first century must possess, i.e. information gathering, synthesis and analysis of data, collaborative problems solving, and collective action based upon analysis.

Traditional schools are constructed of individual classrooms which contain individual student desks. Urban areas compose individual neighborhoods which customs and cultures often inhibit students from exploring beyond the boundaries of their block or "territory." Both the construction of traditional school buildings and the increasing inability of urban students to move freely beyond their neighborhood are walls to the educational process.

Students must be allowed to make connections, both within their school and outside their neighborhood, before education can blossom. Toledo's SchoolNet program will allow elementary students to break down the walls of their classroom by communicating, through Internet, with students in the next classroom and students in other countries. This will enable students who are in different grade levels, in different neighborhoods, even in different countries to share information and jointly develop projects. Toledo's SchoolNet will enable elementary students to break down the resource walls of their classroom and school library and freely access the materials available at the Toledo/ Lucas County Library, at the University of Toledo Library, at National Geographic, and through Internet. Toledo SchoolNet will enable elementary students to break down the walls of their classroom by developing, with students and adults from other classrooms and other neighborhoods, projects that utilize state of the art video and computer presentations.



Tri-Valley Local Schools
Frazeysburg Elementary School,
Frazeysburg Middle School

Site liaison:
James McKee
614.828.2781

Customizing learning with electronic resources

Both the primary and intermediate buildings in Frazeysburg hope to utilize SchoolNet to its fullest potential and serve as innovators not only to the Tri-Valley Local School District, but to other districts across Ohio as well.

We anticipate many strengths with our project. The students will become more active participants in their learning. A variety of resource materials can be acquired and shared with an entire classroom at one time thus meeting the needs of more students within a limited time frame. Traditional academic subject instruction and assessment will benefit through the use of improved research skills and multimedia avenues that will now be available to all classrooms through networking and "on-line" systems. Meeting the needs of students with a wide range of ability levels will be an integral part of the project as students with higher ability levels will be more challenged by the capabilities of SchoolNet and students with lesser abilities will achieve success through learning at their own pace.

Frazeysburg teachers have demonstrated a commitment to change and improvement. New challenges are met with curiosity and enthusiasm rather than with a desire to replicate the old ways. As a prototype school, Frazeysburg is looking forward to the opportunity to learn and grow with increased technology and serve by example with success in the classroom.